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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,035	03/23/2001	Clifford Allen Behrens	1254-US	6185
9941	7590	03/10/2005	EXAMINER	
TELCORDIA TECHNOLOGIES, INC.			AGDEPPA, HECTOR A	
ONE TELCORDIA DRIVE 5G116			ART UNIT	
PISCATAWAY, NJ 08854-4157			PAPER NUMBER	

2642

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/816,035	BEHRENS ET AL.	
	Examiner	Art Unit	
	Hector A. Agdeppa	2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/23/01, 6/4/01, 6/21/01.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/4/01, 6/21/01</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1 – 6 and 10 - 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,974,127 (Wernli et al.), applicant's admitted prior art, and further in view of US 6,393,290 (Ufongene).

As to claim 1, Wernli et al. teaches a method and system for planning a future telecommunications network from an existing network interconnecting users, central offices, and digital cross connects, wherein the existing network may be connected

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using copper cables. (Abstract, Fig. 1, Col. 2, line 63 – Col. 3, line 12, Col. 7, lines 54 - 61 of Wernli et al.) Such a network reads on the claimed baseline architecture planning area.

Wernli et al. is silent as to the network configuration, but of course, a tree structure is merely an abstract term for a network since a network has lines that reach out. And while a network could be configured in a hub-spoke model as well, either is a matter of design choice and preference notoriously old and well known in the communications arts depending on the desired network characteristics and speed of operation, to name only a few motivations.

Wernli et al. also teaches determining a forecast of future demand for telecommunications services as well as other digital broadband services. Again, while Wernli et al. does not specifically teach digital subscriber line (DSL) service, DSL service falls under digital broadband services. (Col. 3, lines 1 – 12, Col. 4, lines 1 - 14 of Wernli et al.)

Even if interpreted differently, applicant's admitted prior art states that DSL services are overlaid on an existing copper network and therefore any service provider seeking to provide DSL service must utilize planning around the existing copper network. (P. 2, lines 3 - 21 of applicant's specification for the present invention) Moreover, this admission makes it old and well known for service providers to provide DSL service. Therefore, it would have at least been obvious for one of ordinary skill in the art to desire to provide DSL service, as well as use an existing copper network as a basis. Moreover, Wernli et al. teaches the desire for the system to be able to adapt to

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the migration of technology, which again, would if not already, in the future cover DSL service. (Col. 1, lines 25 – 47 of Wernli et al.)

Wernli et al. also teaches determining from the forecast, where equipment is to be placed, the type and numbers of equipment, all to minimize cost and satisfying design constraints. (Col. 1, line 50 – Col. 2, line 30, Col. 3, line 28 – Col. 5, line 15, Col. 5, line 49 – Col. 7, line 61, Col. 8, lines 5 - 61 of Wernli et al.)

What Wernli et al. does not teach is the use of demographic data in determining future demand.

However, Ufongene teaches a cost based model for wireless architecture as well as DSL architectures, wherein demographics are used as a part of determining future network architectures. (Abstract, (Col. 1, lines 10 – 24, Col. 5, lines 13 – 29 of Ufongene) It would have at least been obvious for one of ordinary skill in the art at the time the invention was made to have included demographics are part of the future demand determination in Wernli et al. inasmuch as Wernli et al. already teaches using marketing methods to provide future demand forecasts. (Col. 4, line 61 – Col. 5, line 1 of Wernli et al.) As is notoriously old and well known in marketing for telecommunications or any industry for that matter, gathering and using demographic data has become a standard tool in marketing. Moreover, both Wernli et al. and Ufongene teach applying such future demand forecasting to the planning of telecommunications or any communications network. Therefore, the use of demographics has been shown to be applicable to the same market/industry.

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As to claim 2, Wernli et al. teaches determining placement of equipment and the number of equipment at locations. (Col. 5, line 28 – Col. 6, line 59 of Wernli et al.)

Moreover, if a planning system does not eventually determine placement and number of equipment, then it serves no purpose, so in any planning system this would at the least be inherent.

As to claim 3, applicant's admitted prior art states that a geographic information system (GIS) is known to those of ordinary skill in the art as being a useful aid from which demographic information as claimed can be gleaned. (P. 7, line 9 – P. 11 of applicant's specification for the present invention)

As to claim 4, Wernli et al. teaches determining a distribution area read as the claimed boundary of area inasmuch as a distribution area would inherently have to have a boundary or else the distribution area would not really be an "area" but all-encompassing. (Col. 5, lines 16 – 23 of Wernli et al.) Also note that Wernli et al. teaches initially considering a distribution area beginning with the distribution area most distant from the central office, hence inherently indicating a boundary. (Col. 5, lines 16 – 23 of Wernli et al.) Moreover, applicant's admitted prior art states that it is known to those of ordinary skill in the art to use a GIS to select a geographic area. Again, as before, choosing an area inherently requires choosing a boundary. (P. 7, lines 12 – 16 of applicant's specification for the present invention)

As to claim 5, such is inherent and discussed in the above referenced portions of Wernli et al. This is how any network would be created as is evidenced by the fact that as discussed by applicant in the specification for the present invention and in the

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existing network from which Wernli et al. plans the future network (discussed above) is a tree having a central office and cross connects interconnected by cables and subscriber stations.

As to claim 6, see the rejection of claims 1 and 4 and note that subscriber income is a standard or at least a notoriously old and well known parameter used when gathering demographic data. Therefore it would be inherent or at the least obvious for one of ordinary skill in the art at the time the invention was made to have included such parameters when gathering demographic data.

As to claim 10, see the rejection of claims 1, 2, and 6 and note that normalizing cable length is inherent as a result of the configuration constraints discussed in Wernli et al. above. Moreover, determining how subscribers connect to the network is inherent in that as discussed above regarding claim 1, Wernli et al. uses existing data including how subscribers are connected to the network. This information is integral. Without it no service could ever be provided considering future demand because a service provider would simply not know how to connect subscribers to provide service.

As to claim 11, see the rejection of claims 2 and 6. Moreover, again, determining maximum allowable distances is inherent because to provide future service, a provider must know this information. Without it, the provider is shooting blind and may have subscribers which do not get service. At the very least, such information would be obvious for one of ordinary skill in the art to include inasmuch as again, without it, the provider risks denying subscribers service.

As to claim 12, see the rejection of claims 10 and 11. See also Col. 3, lines 27 – 51, Col. 5, lines 28 – 62 of Wernli et al.) Note that as discussed above regarding maximum allowable distances, unless a provider wishes to deny subscribers service, the provider must take into account capacity as well as distance, as seen in the above referenced portions of Wernli et al. Moreover, because Wernli et al. contemplates various parameters and configuration considerations as well as for example, using certain equipment in one area to relieve shortages in other areas, it would have been obvious for one of ordinary skill in the art at the time the invention was made to serve subscribers from the same equipment location when their cables meet. Such a scenario would be contemplated by Wernli's ability to service different areas efficiently.

Furthermore, such is simply old and well known in the art. Basic tenets of telecommunications teach breaking service into various groups and/or service areas so that subscribers that would be served efficiently. If cables meet, it is likely that they are located near each other for example. Therefore, it would simply be common sense to serve them from the same equipment location if they are near enough that their cables meet.

Allowable Subject Matter

2. Claims 7 – 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: The invention as now claimed is not disclosed or rendered obvious in view of the prior art of record. The prior art of record fails to teach or suggest, alone or in combination, the recited use of a mixed regressive spatial autoregressive logistic model (MRSAL) algorithm wherein all the values of a certain variable W are equal to zero as set forth in claims 7 - 9.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hector A. Agdeppa whose telephone number is 703-305-1844. The examiner can normally be reached on Mon thru Fri 9:30am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad F. Matar can be reached on 703-305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hector A. Agdeppa

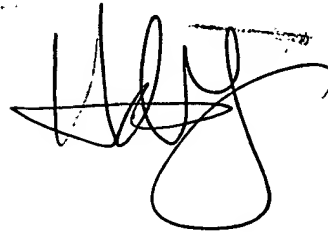
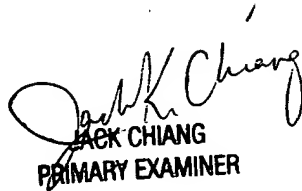
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Examiner
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March 4, 2005

HECTOR A. AGDEPPA
PATENT EXAMINER

A stylized, handwritten signature in black ink, likely belonging to Hector A. Agdeppa, positioned below the printed name.A stylized, handwritten signature in black ink, likely belonging to Jack Chiang, positioned above the printed name.
JACK CHIANG
PRIMARY EXAMINER